

**EGU**  
**Geomorphology**  
**Division (GM)**

**2012 Business meeting**

**Andreas Lang**

# Agenda

- 1) Summary of EGU council meetings
- 2) Where is GM now
- 3) Where is GM going
- 4) 2013 programme
- 5) Medal/Awards
- 6) Any other business
- 7) Announcements

# EGU Council

## EGU2012 News

- **Imaggeo**
- **New Newsletter**
- **New EGU blog**



**GeoLog**    <http://egugeolog.wordpress.com/>

- **New people**

# EGU Council

**EGU President 2012–2016**

**Günter Blöschl**



**EGU General Secretary 2012–2014**

**Mioara Mandeia**



# EGU 2012 PROVISIONAL BUDGET

## *main components*

	income	expenditure
<b>MEETINGS</b>	<b>2,85 M€</b>	<b>2,3 M€</b>
Registration	2,16 M€	
Abstract Charges	370 k€	
Exhibition	270 k€	
<b>PUBLICATIONS</b>	<b>2,92 M€</b>	<b>2,42 M€</b>
<b>MEMBERSHIP</b>	<b>110 k€</b>	<b>20 k€</b>
<b>OUTREACH</b>		<b>310 k€</b>
<b>EXECUTIVE SECRETARIAT</b>		<b>560 k€</b>
<b>RESERVE</b>		<b>100 k€</b>
total:	<b>5.8 M€</b>	<b>5.8 M€</b>

## ***EGU OUTREACH***

- *General assembly activities*
- *Meetings and training*
- *Education*
- *Media*
- *Networking*
- *Foreign affairs*
- *Policy*
- *Sponsorship*

## ***GM OUTREACH***

- *Mentoring Network*
- *Geomorphology pages on EGU website*
- *Portal for Geomorphology information and Materials*

## ***OPPORTUNITIES***

- *Finance, endorsement, logistics, protocol of meetings and training*
- *Media outlet for science highlights*
- *Imaggeo*
- *Ambassadors*
- *GIFT lectures*



# EGU 2012 General Assembly News

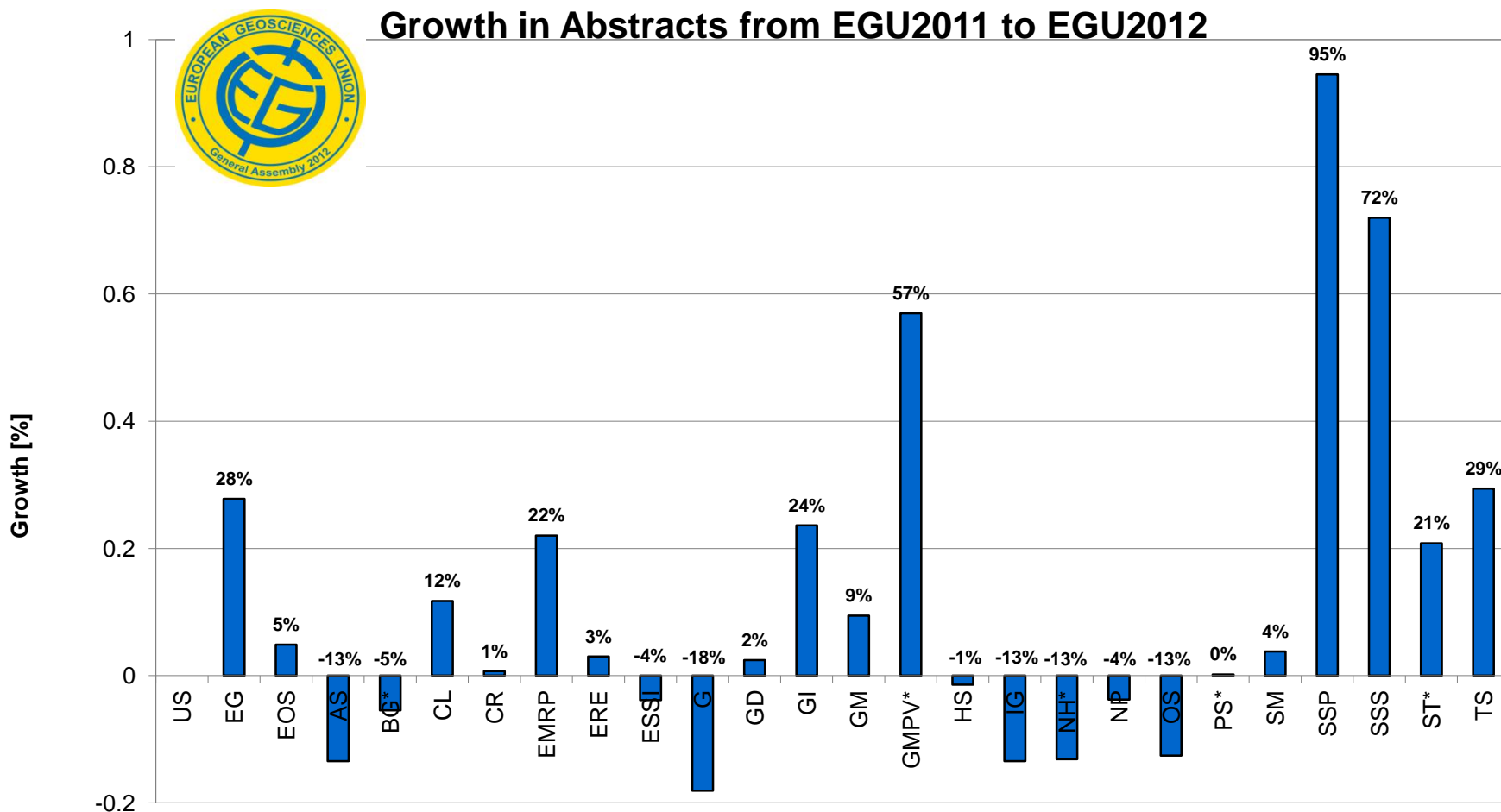
- *EGU General Assembly: **mobile app***
- *Poster Printing Service*
- ***Photo exhibit at the 2012 General Assembly:  
Japan before and after the tsunami***
- *EGU 2012 General Assembly: **Webstreaming***

# EGU 2012 General Assembly News

*As of 19 April, the Assembly 2012 provides:*

- *13,528 Papers in Programme | +1.5% (2011)*
- *4,436 Orals | 9,092 Posters | Ratio 33 / 67*
- *530 unique scientific Sessions | 157 PSD Sessions | 165 Side Events\**

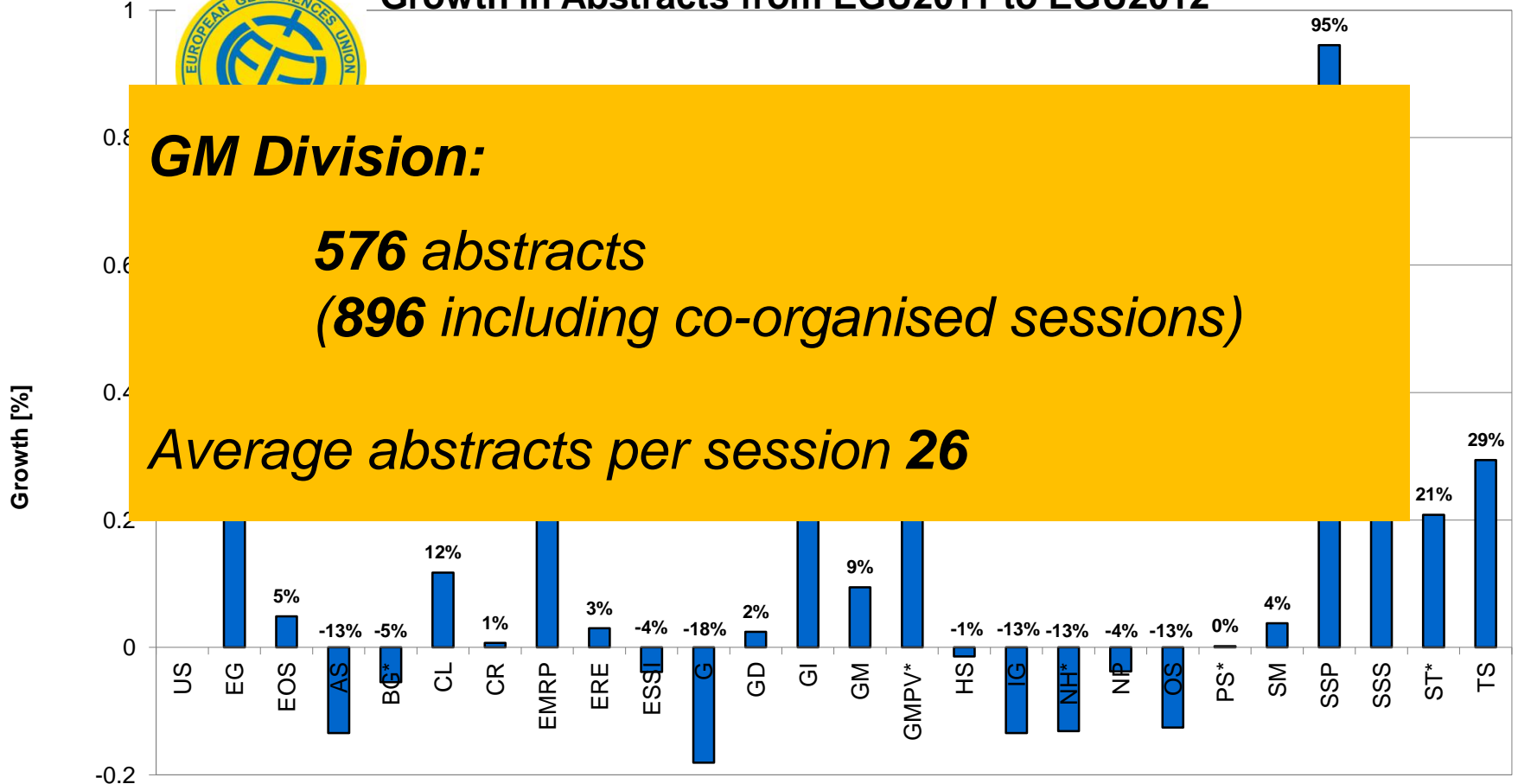
# STATE OF EGU 2012 GA PROGRAMME



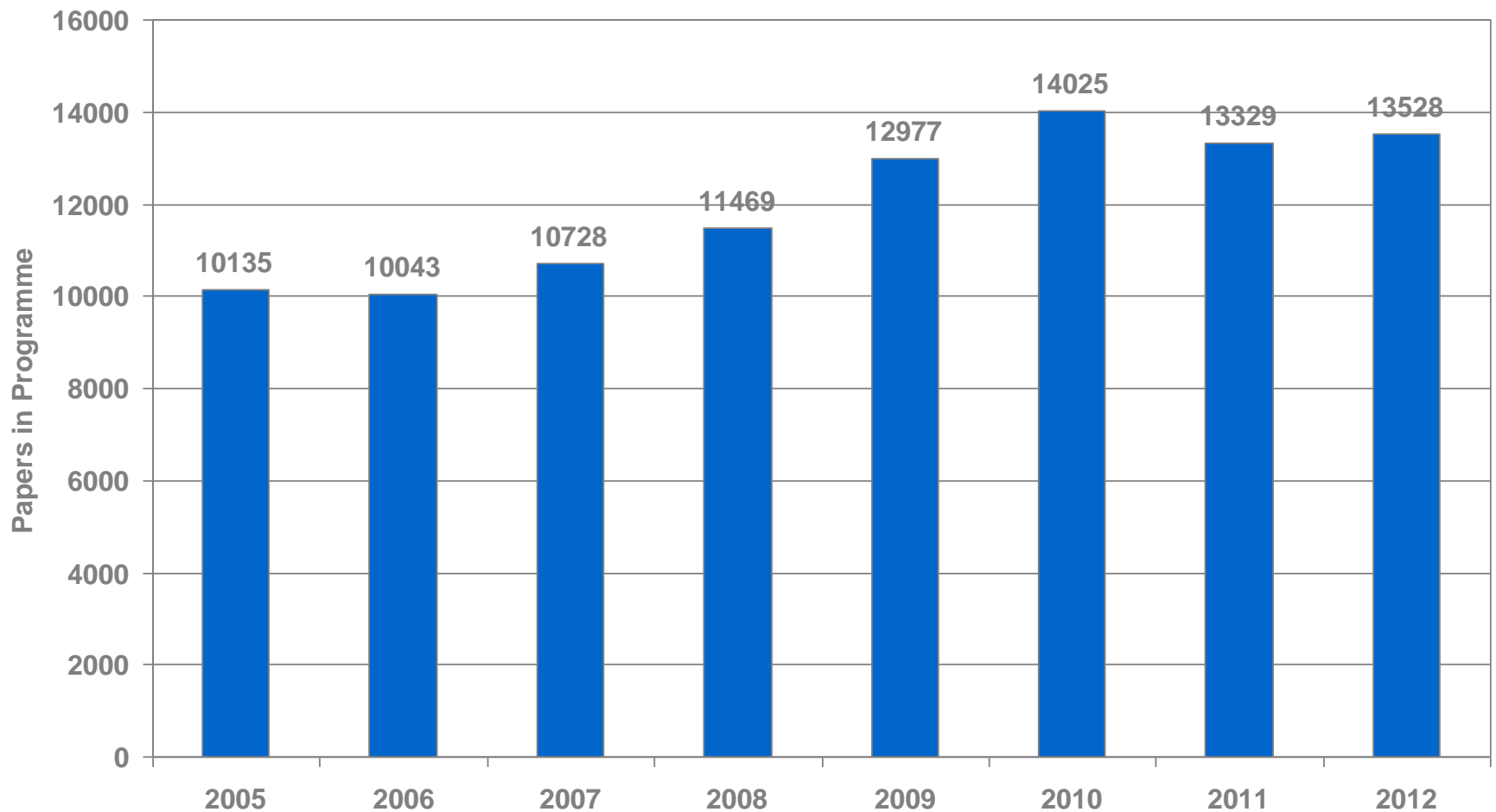
# STATE OF EGU 2012 GA PROGRAMME



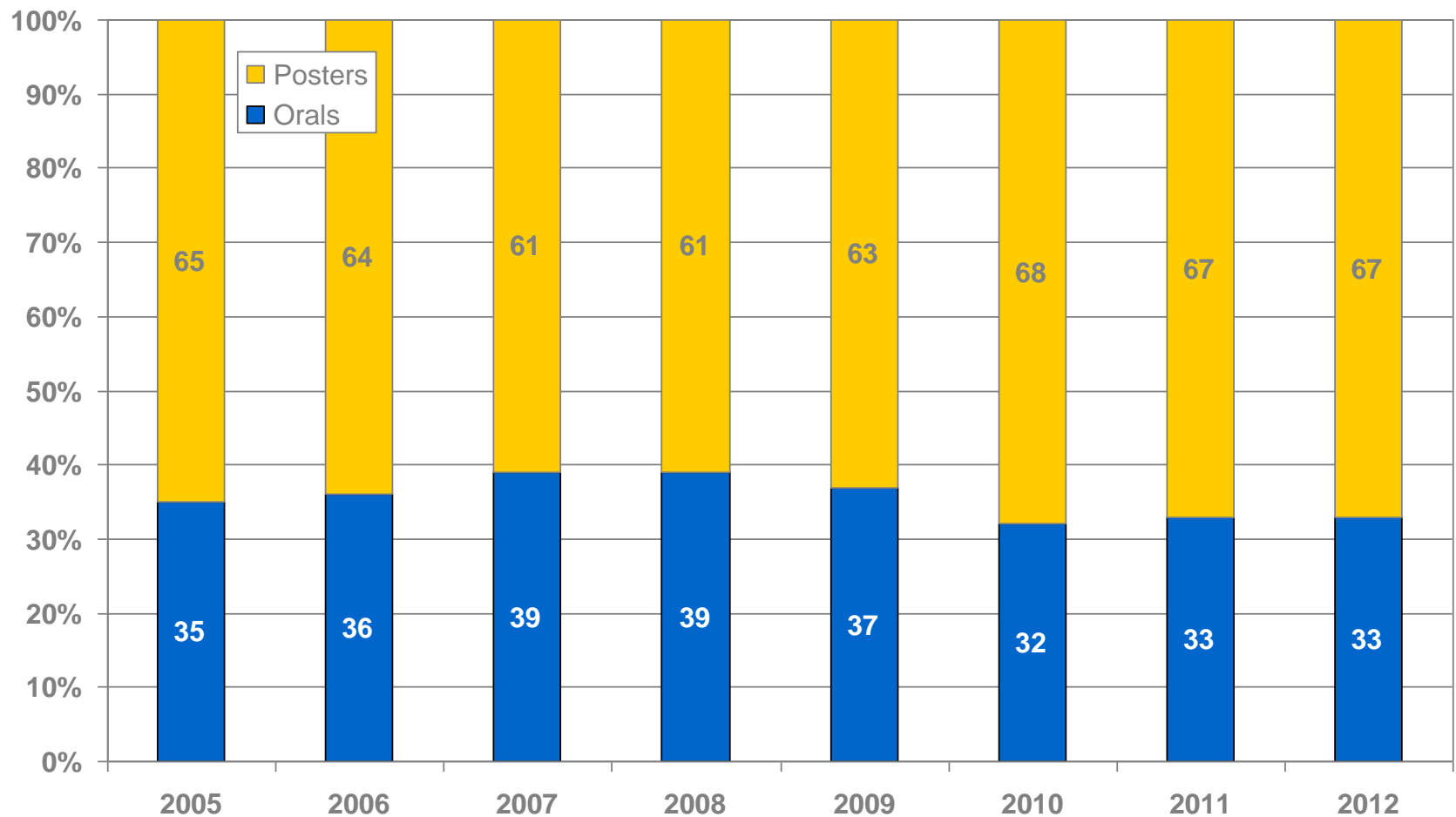
## Growth in Abstracts from EGU2011 to EGU2012



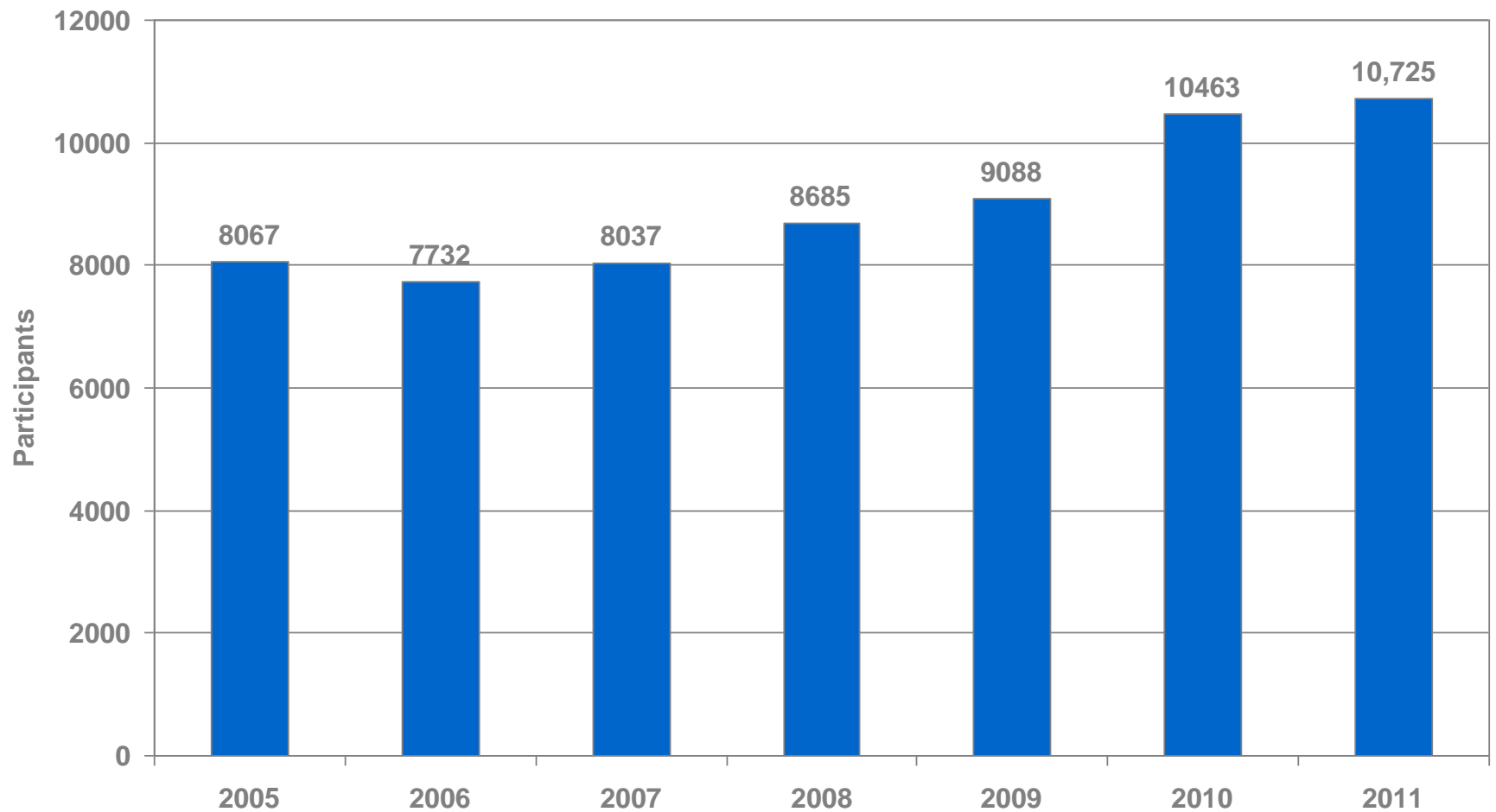
## *Papers in Programme 2005–2012*



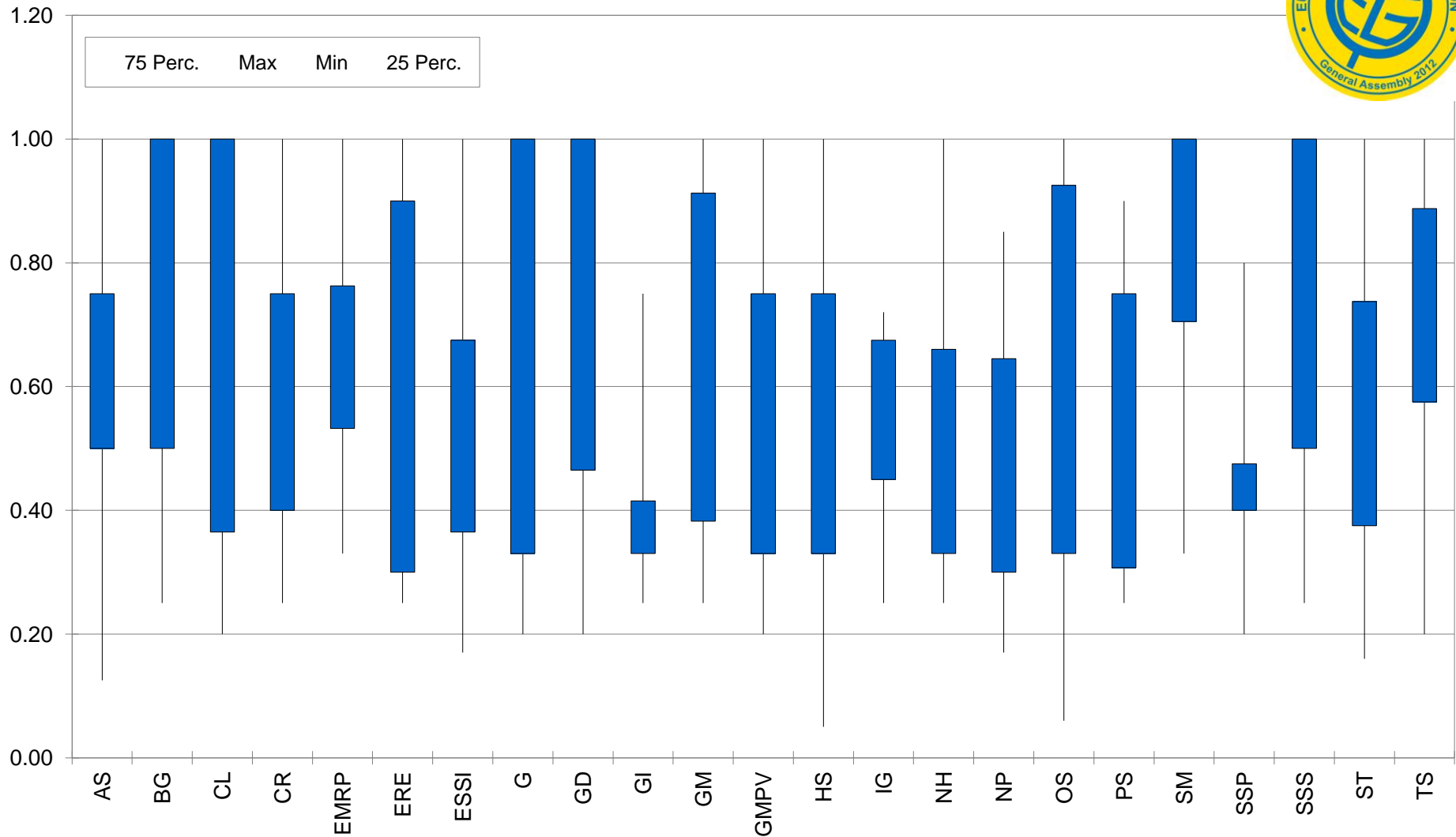
## Oral/Poster Ratio 2005–2012



## ***Participants at EGU Assemblies 2005–2011***



# EGU2011 Room Occupancy





# EGU Council

- **EGU2011 Survey Results**

Full report available at:

[http://www.egu2012.eu/egu2011\\_survey\\_results.html](http://www.egu2012.eu/egu2011_survey_results.html)

- **EGU2012 Feedback**

<http://tinyurl.com/EGU2012GA-feedback>

# GM Division Strategy

- Comprehensive coverage of geomorphology.
- Raise the profile of Geomorphology/Earth Surface Science in Geoscience and beyond.
- Work across boundaries with other disciplines/divisions to foster new lines.
- Consolidate EGU as *the* annual geomorphology assembly.
- Initiate EGU specialist conference on geomorphology-related topic.
- Enhance ties with other organizations

# GM Division Strategy

- Enhance ties with other organizations



## MEMORANDUM OF UNDERSTANDING between

The Geomorphology Division of the European Geosciences Union (EGU)  
and  
The International Association Of Geomorphologists (IAG)

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The Geomorphology Division of the European Geosciences Union (EGU) and the International Association of Geomorphologists (IAG / AIG) recognise that a closer relationship between the two organisations can foster international exchange in geomorphological research and learning and promote international opportunities in geomorphology for members of both organisations.

*- Full text will be available on the GM division web page -*

# GM Division Strategy

- Enhance ties with other organizations
- Memorandum of understanding signed with IAG

21.04.12

- Round table discussion:

***Geomorphology in Europe***

# Round table discussion: ***Geomorphology in Europe***

**Representation from Geomorphological associations of:**

Austria, Belgium, Croatia, Czech Republic,  
Estonia, France, Germany, Greece, Hungary,  
Italy, Netherlands, Norway, Poland, Portugal,  
Romania, Slovakia, Slovenia, Spain, Sweden,  
Switzerland, UK

IAG

EGU

## Round table discussion: ***Geomorphology in Europe***

- Improving information exchange between associations
- Strengthen the visibility of Geomorphology as scientific discipline of relevance to societies
- Join forces to:
  - support & train the next generation of Geomorphologists  
(PGR students and young researchers)
  - set the agenda in research programmes  
(EU and national levels)

# GM Division Strategy

- Topical meetings    ESPG
- Training & Support of young researchers  
(Summer-/ Winter-Schools; mentoring;  
'how to' workshops,...)
- Teacher training    (EGU outreach)
- Web presence  
links, database of geomorphology in Europe,  
news, announcements

# GM Programme 2013

- Session proposals asap, deadline September.
- Regular updates to GM2012 email list.
- Encouraged: Co-organized sessions  
Sponsored sessions/speakers
- Desired: Continuity of strongest sessions  
Topical sessions

Session proponents must work to:

- solicit abstracts & ensure delivery

Session chair duties also include:

- student travel support selection
- OSP

Vienna has been signed as venue until **2015**



# GM Officers

## Secretaries:

- Meeting programme: Jens Turowski  
Open call for membership
- Awards: Gerard Govers
- OSP: Thomas Hoffmann
- Web master: Arnaud Temme

Call for participation

# Ralph Alger Bagnold Medal

.... in recognition of an outstanding scientific contribution to the study of geomorphology, by means of:

1. an exceptional recent contribution to a particular research area.
2. the originality and innovative nature of the research
3. the timeliness and significance of the research

Recipients:	2008	Kelin Whipple
	2009	Gerard Govers
	2010	Friedhelm von Blanckenburg
	2011	Stewart Lane
	2012	Greg Tucker

Nominations via EGU website by June 15!

# Medal committee

**Gerard Govers** (chair)

*2009 medalist*

Philippe Davy

U. Rennes, Fr

Kelin Whipple

*2008 medalist*

Friedhelm von Blanckenburg

*2010 medalist*

Stewart Lane

*2011 medalist*

Greg Tucker

*2012 medalist*

Andreas Lang (*ex officio*)

# Other Awards/Honours

## Outstanding Young Scientist Award

Union award for Geoscientist under 35, or <5 years beyond PhD.

## Outstanding Young Geomorphologist: Walter Penck Lecture

**2012 Veerle Vanacker**



Nominations via EGU website by June 15!

This poster participates in  
**OSP**



**Outstanding Student  
Poster Contest**





# CONTROLS ON INITIAL OXBOW SEDIMENTATION AS OBSERVED WITHIN RECENTLY CUT-OFF CHANNELS OF THE AIN RIVER, FRANCE

Pauline Dieras<sup>1</sup>, Hervé Piegay<sup>2</sup>, José A. Constantine<sup>1</sup>

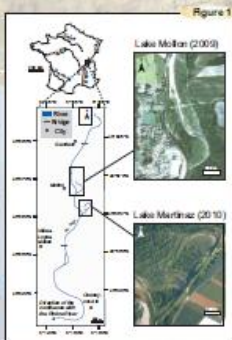
<sup>1</sup>Cardiff University, School of Earth and Ocean Sciences, Cardiff, Wales, UK; <sup>2</sup>CNRS, UMR 5000 EVS, Site ENS-LSH, Lyon, France  
Contact: DierasP@cardiff.ac.uk



Oxbow lakes are one of the most common water features observable on the floodplains of meandering rivers. They are typically crescent-shaped, forming from an abandoned river channel after a river cut-off to form a new channel. Oxbows tend to progressively aggrade with sediment until complete terrestrialisation, and it can take between 10 to >1000 years. Just after cut-off, the abandoned channel is aggraded by bed material, which forms a plug that disconnects the upstream (and sometimes downstream) entrance from the old channel. Understanding the development of sediment plugs is important for determining the longevity of oxbows as aquatic habitat because plugs prevent further bed-material deposition and are pivotal to establishing the initial open-water volume.

## 2 Aim of the study

Our study aims to understand the initial aggradation of oxbow lakes using two recently cut-off channels of the Ain River (France). These sites cut-off in 1994 (Mollon, fig.1), 2002 and 2003 (Martinaz, fig.1). The growth of the bed-material plugs have been well documented with topographic data from 1999, 2004, 2008 and 2010, which makes these sites very suitable for studying plug formation. In addition, because of their proximity and their similar age, they have undergone comparable hydraulic and sedimentological histories.



## 3 Methodology

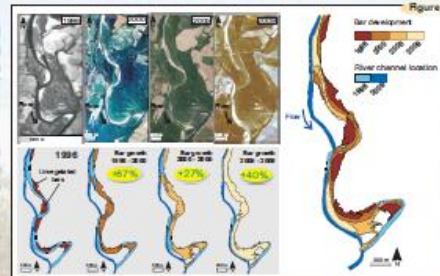
The first stage of cut-off channel aggradation has been investigated with:

- aerial photographs from 1996 to 2010 georectified using GIS
- a longitudinal profile measured in 1999 (before plug blockage)
- cross sections from 2004 (after blockage)
- LIDAR from 2008
- Differential-GPS field survey from 2010.

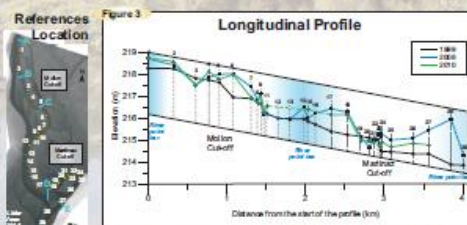
## 4 Result A: Repartition of the initial deposition

- Mollon oxbow lake (upstream, fig.1 and 2) was cut-off around 1994 and Martinaz (downstream) cut-off in 2002 and 2005. Mollon have an initial diversion angle of 15° whereas it was 40° and 80° for Martinaz double cuts-off.

- The terrestrialization of Mollon has mainly occurred by the development of bars within the channel whereas Martinaz was aggraded exclusively on its upstream entrance (see 2000-2005, fig.2)



## 5 Result B: Quantification of sediment deposits

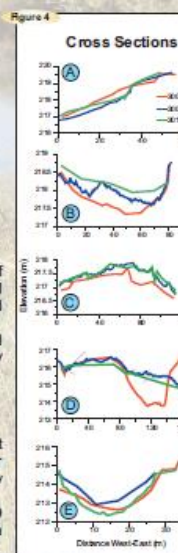


### ► MOLLON CUT-OFF (fig.3 ref.2 to 11, fig.4B,C):

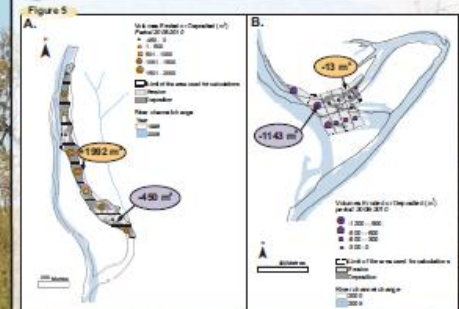
- Sediment deposition between 1999 and 2010 was highest in the middle of the former channel (point 6, fig.3). Although the entrance may have eroded by 30 cm (point 3, fig.3), much of the former channel experienced significant aggradation, up to 1.2 m between 1999 and 2008.
- Even after plug formation in 2005, the entrance continued to be aggraded by up to 75 cm by 2010 (fig.4B). The rate of aggradation systematically decreased downstream of the entrance (50 cm max, fig.4c).

### ► MARTINAZ CUT-OFF (fig.3 ref.18 to 27 and fig.4D,E):

- The longitudinal profile shows that since 1999, up to 1 m of sediment deposited at the upstream and the downstream entrances of the former channel (ref 18 and 26 fig.3). Almost 2 m of sediment was deposited locally within the upstream plug between 2004 and 2008 (fig.4D).
- However, the downstream part of the former channel was eroded by 30 cm between 2004 and 2008 (last cut-off happened in 2005). Later, between 2008 and 2010, 50 cm of sediment was deposited downstream (fig.4E).



## 6 Result C: Post Plug formation



- Once the plug is fully developed upstream, direct bed-material transport is obstructed at the entrance of the former channel. Figure 5 shows a 2 year sediment budget (2008-2010) of the terrestrial part of the oxbows, indicating how the sediment plugs evolved after their formation.

- The volumetric change in sediment being stored/eroded between 2008 and 2010 is approximately 7500 m<sup>3</sup> for Mollon and -4000 m<sup>3</sup> for Martinaz.

- The largest deposits in Mollon are located on the upstream part of the cut-off. Most of Martinaz erosion occurred in the area on the concave bank of the new river channel, and a sediment deficit downstream of the Mollon cut-off could have accentuated the erosion within Martinaz.

## 7 CONCLUSION

- The initial sediment aggradation can vary: by growth of the bars or by aggradation on the upstream end.

The location of the cut-off on the meander bend is different (convex vs concave) and this, along with the diversion angle<sup>10</sup>, have probably affected the initial bed-material transport within the former channels.

- After the plug is fully developed the dominant process is not necessarily sedimentation.

Sediments carry on being remobilized within former channels and the channel shape favoured the erosion of the plug at Martinaz.

- The shape of the new channel is an important control.

### REFERENCES

1. Dieras, P., Piegay, H., Constantine, J.A. (2015) Controls on initial oxbow sedimentation as observed within recently cut-off channels of the Ain River, France. *Journal of Hydrology*, 525, 1-15.



**Any Other Business**

# **Announcements**



# BSG 2012 Annual Conference

[Home](#)[News](#)[Abstracts](#)[Programme](#)[Workshop](#)[Registration](#)[Contact us](#)

"Are we putting the model cart before the data horse?"

25th - 27th June 2012

East Midlands Conference Centre, Nottingham

[bsq2012@nottingham.ac.uk](mailto:bsq2012@nottingham.ac.uk) @BSG\_2012 #bsg2012



The ongoing debate between the relative importance of data and models is an issue that brings together all branches of Geomorphology and goes to the heart of what we do and why we do it.

As with most debates the truth is likely somewhere in between the two end members, but can we focus in on exactly where in between this happy medium lies?

We invite submissions for oral and poster presentations around the 3 broad topics below and hope you will join us in developing an exciting and invigorating meeting.

- Data as a means of geomorphologic knowledge enhancement
- Models as a means of geomorphologic knowledge enhancement
- When data and models collide...

## Latest news

[Online registration now open](#)

[Call for abstracts](#)

## Quick links

[BSG site](#)



## European Geosciences Union

Dedicated to the pursuit of excellence in the geosciences and the planetary and space sciences for the benefit of humanity.



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Divisions:  ▼

# EGU General Assembly 2013

## Vienna, Austria

## 07–12 April 2013

# 10th International Conference on Fluvial Sedimentology

LEEDS, UK 14-19 JULY 2013



## Announcements

- > First circular released
- > Important dates
- > Organising committee additions
- > Keynote speakers confirmed
- > Invited speakers added

## LEEDS'13

TUCUMÁN'09  
DELFT'05  
LINCOLN'01  
CAPE TOWN'97  
BRISBANE'93  
BARCELONA'89  
FORT COLLINS'85  
KEELE'81  
CALGARY'77

The organising committee of the 10th ICFS is privileged to welcome you to Leeds from 14-19 July 2013. The 10th ICFS will debate fluvial processes and deposits across the full range of spatial and temporal scales and highlight research that uses theoretical, experimental, field and numerical techniques. The conference will have six broad **themes** each with a series of specific sessions offered and chaired by individuals. We would be pleased to **receive** ideas for session topics in Spring 2012.

We look forward to welcoming you to Leeds in 2013,

the Organising Committee

Modern

Ancient

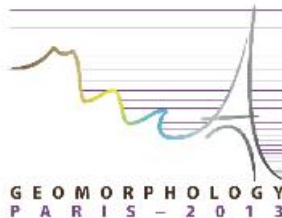
Process

Modelling

Resources

Hot





# 8<sup>th</sup> IAG - International Conference on **Geomorphology** PARIS - 2013 27-31 August

« *Geomorphology and Sustainability* »



## Contacts

### • Organizing Committee

Coord.: Prof. S. Costa (president) - Prof. N. Carcaud (field trips) - Dr. É. Cossart (communication)  
IAG2013@europa-organisation.com

### • Scientific Committee

Coord.: Prof. M. Fort - Prof. M.-F. André  
m-francoise.andre@univ-bpclermont.fr

[www.geomorphology-IAG-paris2013.com](http://www.geomorphology-IAG-paris2013.com)

Declaration of interest

Submission opening: February 15, 2012

Submission closing: October 15, 2012

## List of sessions

**S1. History and epistemology of geomorphology**

**S2. Geomorphology and earth system science**

**S3. Planetary geomorphology (IAG-WG)**

**S4. Megageomorphology**

**S5. Tectonic geomorphology** (including neotectonics and paleoseismology)

**S6. Volcanic geomorphology:** towards a quantitative assessment of volcanic landforms, processes and hazards

**S7. Magnitude and frequency in geomorphology** including:

- S7A - Extreme events in geomorphology (IAG-WG)

**S8. Geomorphic processes and long term landscape evolution**

**S9. Rock control on geomorphic processes and landforms including:**

- S9A - Sandstone geomorphology (Danxia IAG WG), extended to quartzites
- S9B - Karstic geomorphology: from hydrological functioning to palaeoenvironmental reconstructions

**S10. Quaternary geomorphology** (including FLAG, GLOCOPH and PAGES-LUCIFS)

**S11. Geomorphology and global environmental change**

**S12-16. Anthropocene geomorphology**

- S12. Geoarchaeology (IAG-WG)
- S13. Human impacts on landscapes (IAG-WG)
- S14. Geomorphic hazards, risk management and climate change impact (IAG-WG)
- S15. Geoconservation, geotourism and education including:

- o S15A - Anthropogenic drivers of cultural stone deterioration and conservation
- o S15B - Geomorphosites (IAG-WG) including geoparks and WHS
- o S15C - Managing landscape dynamics in protected areas
- o S15D - Teaching and disseminating geomorphology

- S16. Forum francophone : la géomorphologie au service du développement durable

**S17. Geomorphology and the Critical Zone** (including weathering, soils and biogeomorphology)

**S18. Hillslope processes and mass movements**

**S19. Fluvial geomorphology and river management** including:

- S19A - Large rivers (IAG-WG)
- S19B - Small catchments (IAG-WG)
- Other subsessions (e.g. river management and restoration)

**S20. Sediment budgets** (IAG-WG covering all environments)

**S21. Coastal geomorphology and management** including:

- S21A - Reef forms (IAG-WG)
- S21B - Rocky coasts (IAG-WG)
- Other subsessions

**S22. Submarine geomorphology**

**S23. Aeolian systems and arid geomorphology** (including subarid margins)

**S24. Tropical geomorphology**

**S25. Cold region geomorphology** including:

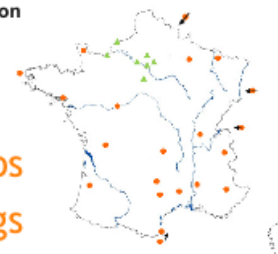
- S25A - Glacial and paraglacial geomorphology
- S25B - Permafrost and periglacial geomorphology (in coop. with IPA)
- S25C - Mountain geomorphology

**S26. Methods in Geomorphology** including:

- S26A - Modelling in geomorphology
- S26B - Remote sensing (including laser scanning, applications of radar, etc.)
- S26C - DEM, GIS and spatial analysis
- S26D - Statistics in geomorphology
- S26E - Dating methods (including cosmogenic nuclides)
- S26F - Applied geomorphological mapping (IAG-WG)

**S27. Young Geomorphologists Session**

**S28. Open session**



More than **20** field trips  
planned in France and surroundings

